

For each action item where your agency is identified as the OPR, please provide brief but specific answers to the following questions (if you share OPR duties/privileges, please coordinate):

- a. Has your agency, as the OPR, contacted and consulted/coordinated with the Office(s) of Coordinating Responsibility (“OCRs”)?
- b. Briefly describe progress made, in narrative form as well as percentage completion (est.).
- c. If no progress has been made, or progress has been slower than expected, identify reasons, obstacles, possible ways to overcome them.
- d. Are other partners, resources needed?
- e. If the action item is not complete, what is estimated date of completion (using realistic optimism)?

GOAL 1 – LEAD BY EXAMPLE

Action 1.1.4 Designate senior staff level leads in each state agency to coordinate implementation of guidance across programs and projects, incorporation into strategic and work plans, tracking of performance, identification of challenges and opportunities, etc.

Status (by JHR): All (20) agencies asked to designate leads by the Governor have done so. A few have already included climate resilience in their strategic plans and work plans. Many still need to be introduced to the basic concepts and the work of the EC4 to date. We are behind schedule on developing and disseminating guidance. An initial meeting of agency leads is being planned for late November/early December.

Action 1.1.5 Create short- or longer term interagency teams where that allows outcomes to be achieved more cost-effectively and/or quickly, for example, in areas like scientific and technical support, vulnerability assessments, public outreach , education and communications

Status (by JHR): Several interagency teams have been working on a range of issues, including guidance for municipalities on planning for storm-related flooding, vulnerability assessments, communications strategy and reduction of greenhouse gas emissions in the transportation sector. See specific action items below.

Action 1.2.3 Develop and incorporate a set of resilience criteria for use in this year’s capital planning process

EMA:

- a. Minimally.
- b. RIEMA has reached out to DOA/OMB to determine how and to what level of information can be developed for incorporation into the Capital Budget process for projects. RIEMA also came up with a quick checklist of questions that could be integrated as a starting point for capital projects as they move through the review process in order to flag ones that may qualify for climate change mitigation.
- c. We need to understand a timeline of when and how this information can be incorporated into the process and to what level of detail.
- d. ?
- e. Unknown at this time.

Action 1.2.6 Continue "Lead by Example" state energy efficiency program through RI Public Energy Partnership: benchmark energy use in state facilities and set goals for energy use reduction.

OER:

- a. The Rhode Island Public Energy Partnership (RIPEP) is a precedent-setting collaboration, led by the Rhode Island Office of Energy Resources (OER), to achieve deep energy savings in state and municipal facilities through benchmarking energy use, implementing energy efficiency upgrades, and addressing long-standing barriers. RIPEP's goal is to reduce energy usage by 20% in at least 100 public facilities.
- b. As part of RIPEP, the State of Rhode Island has signed on to the U.S. Department of Energy's Better Buildings Challenge, which commits the state to reducing energy usage by 20% below 2008 levels by 2020 in state facilities.
- c. A total of 9 state agencies are now RIPEP partners. Within these, 529 facilities have been baselined in ENERGYSTAR Portfolio Manager, 8 energy assessments have been completed, and 1 energy efficiency project has been completed for an estimated electric reduction of 67%.
- d. Additionally, 15 Department of Transportation facilities have been entered in the U.S. Department Energy's Asset Scoring Tool, which assesses how building characteristics impact energy consumption.
- e. In 2015, the OER will explore ways to expand RIPEP into the centerpiece of a more comprehensive, sustainable program that will assist state agencies and municipalities connect with innovative energy efficiency and renewable energy programs now under development at the OER.

Action 1.3.1 Conduct inventory of current and planned activity by state agencies, including contracted work, conduct SWOT analysis, including gap analysis, and evaluation of options to improve coordination, use of scarce resources, etc.

EMA:

- a. Minimally.
- b. None.
- c. A determination needs to be made in terms of what activities and to what level the Council would like to focus on and track. Those discussions haven't occurred yet.
- d. All agencies will be needed at some point.
- e. Unknown at this time.

Action 1.3.4 Produce state inundation maps for 1', 3' and 5' SLR scenarios, with and without storm surge, consistent with state planning criteria for SLR and coastal flooding

CRMC:

Status: CRMC has coordinated with the OCRs (Div. of Planning, RIEMA, URI OE and RISG) for this Action. Inundation analyses have been completed for 1, 2* and 5 feet of sea level rise to include current conditions and 25, 50 and 100 year storm event return intervals. Draft maps are being prepared and should be available for review next month (November) with final maps prepared by end of the year (2014). Action is more than 50% completed at this time.

**Note: 2 feet of SLR was selected (rather than 3 ft) at the recommendation of Dr. Spaulding (URI OE), because it's expected RI may experience 2 feet of SLR as soon as 2050 and it's shorter time frame for realistic planning purposes.*

GOAL 2 – PARTNER WITH LOCAL GOVERNMENT & PRIVATE SECTOR

Action 2.2.1 Develop planning guidance for cities and towns to complete and/or update hazard Mitigation Plans, including recommendations regarding coordination with neighboring towns

EMA:

- a. Yes.
- b. RIEMA is currently working on developing a mitigation template and handbook for municipalities to utilize during their plan development process.
- c. NA.
- d. No?
- e. Unknown at this time.

Action 2.2.3: Provide technical assistance to municipalities to incorporate climate change adaptation into comprehensive planning, hazard mitigation plans, capital improvement and transportation improvement programs

CRC:

- a. Yes, coordination is ongoing with different agencies on several municipal pilot projects and guidance documents. Given the breath of this action to all 39 municipalities, it is suggested that the EC4 revisit the designation of the OPR to Statewide Planning, with URI/CRC as an OCR supporting the achievement of the goal.
- b. URI/CRC/RISG pilot project efforts in North Kingstown and Newport are ongoing. North Kingstown Pilot Report related to vulnerability and adaptation together will be finalized in December, 2014 and be incorporated into their LCP process starting in January 2015. Draft chapters have been shared with several municipalities throughout the state. A draft model process for assessing vulnerability and adaptation planning will be completed in December 2014, for dissemination to other municipalities. The URI/CRC/RISG Team has worked closely with North Kingstown and the Statewide Planning Program to incorporate lessons learned, relevant tools and processes relative to coastal hazards and resilience into the draft Local Comprehensive Plan handbook. Similarly, the team has worked with CRMC to insure that the lessons learned are incorporated into the evolving Beach SAMP toolbox. Tools development and municipal capacity building for Sea Level Affecting Marsh Migration was completed in October, 2014 in coordination with CRMC, TNC, NBNERR, STB, and RWU
- c. If no progress has been made, or progress has been slower than expected, identify reasons, obstacles, possible ways to overcome them. Application at the municipal level, together with documenting the process into guidance that is vetted among stakeholders takes good time.
- d. Are other partners, resources needed? Yes, both financial and human resources are needed to train and outreach to each municipalities in the direct implementation of the guidance. There will have to be a strategy developed to determine how best to expand to other communities. Discussions have initiated with other potential partners to outreach to communities.
- e. If the action item is not complete, what is estimated date of completion (using realistic optimism)?
Totally resource dependent to reach 39 municipalities, ideally by 2016 when their revised Local Comprehensive Plans are due.

Action 2.2.4 Develop mechanism to provide notice to cities and towns of funding opportunities to implement projects outlined in their Hazard Mitigation Plans.

EMA:

- a. Yes.
- b. Notices to municipalities regarding grant funding availability is a continuous process. Depending on funding type the mechanisms to provide notice will vary, but all municipalities are notified of opportunities through a notification process.

- c. NA.
- d. NA.
- e. Ongoing.

Action 2.3.2 Provide guidance and technical resources to cities and towns to set and achieve clean energy goals, i.e. goals for reduced energy consumption, decreased carbon emissions, increased renewable energy, and environmentally-friendly transportation and land use systems; include guidance for updating and streamlining local permitting

OER:

- a. Yes
- b. OER established and launched the Municipal Energy Working Group. The first meeting was held on September 17 and 32 municipalities were represented. The Municipal Energy Working Group will provide a venue specifically for municipal officials to learn about statewide energy programs and policies, as well as forum to provide feedback to state officials on municipal issues of importance related to energy. OER anticipates using the Municipal Energy Working Group to promote the awareness of currently available funding and technical assistance opportunities for cities and towns; to solicit input as OER develops new programs and guidance materials for municipalities; and to share information about best practices related to the implementation of clean energy projects and programs throughout Rhode Island.
- c. N/A
- d. N/A
- e. This is an ongoing effort.

Action 2.4.1 Create or use an existing public-private partnership to deliver a one-stop, consolidated concierge service to provide homeowners as well as small businesses with easy access to energy programs.

OER:

- a-b Starting over the summer of 2014, OER has brokered conversations with National Grid and the Renewable Energy Fund at Commerce RI to discuss ways to coordinate messaging across programs/departments to increase accessibility of energy programs across the state. Instead of creating a new website/forum for sharing information with the public, the group is determining how best they can leverage their existing outreach to ratepayers/residents to cross-promote programs. For example, Commerce RI has provided language to National Grid for National Grid's auditors to use during the intake process for new energy audits that can help assess interest in renewable energy. As OER plans for the release of the PACE financing program, these conversations have moved into that forum – helping determine the process by which homeowners will engage with the process around PACE so that they can learn about and participate in all relevant energy programs.

OER and the Energy Efficiency & Resource Management Council, in partnership with National Grid, also funded a series of focus groups and surveys to gauge homeowner and small business owner knowledge of and participation in energy programs across the state. The study was meant to help assess whether Rhode Island would benefit from a statewide energy 'brand', similar to the brands in our neighboring state - MassSave and EnergizeCT. OER also participated in a national meeting with representatives from several statewide brands (CA, WI, MA, CT, VT, DC, et al.) as a fact-finding mission. OER is currently drafting next steps as follow up to its branding research study with National Grid.

CommerceRI: “currently provides concierge services to small businesses. If an energy-related question arises, it is handled by our Renewable Energy Fund staff.”

Action 2.4.2 Conduct outreach and training program with chambers, trade associations, insurance industry et al. to educate business owners about best practices in terms of mitigating risk, adaptation, preparedness, recovery, programs, etc.

CommerceRI: “does not have available staff or resources to conduct this task. We have had discussions with RIEMA about possible grant sources to fund this in the future.”

Action 2.5.1 As part of Resilient Economy Collaborative (see Action 3.1.1) , create team with experts from financial sector and Treasurer's Office, develop plan to attract private capital to provide long-term, sustainable financing for energy efficiency, renewable energy and alternative transportation programs and projects, as well as non-energy mitigation and adaptation project

OER:

- a. Yes. Commerce RI is the OPR, but OER/EERMC have taken the initial lead.
- b. The EERMC has commissioned Dunsy Energy Consulting to work with a group of key stakeholders to explore the potential expanded use of financing for energy efficiency and clean energy in Rhode Island. A final white paper will synthesize input from the group and primary research developed by Dunsy. A final product is anticipated in January 2015.
- c. N/A
- d. N/A
- e. Final whitepaper developed by January 2015.

Commerce RI: “administers the Renewable Energy Fund and the Energy Revolving Loan Fund.”

Action 2.5.2: As part of Resilient Economy Collaborative, create team with experts from financial and utility sectors, as well as Treasurer's Office, explore/develop new, sustainable financial strategies for public utilities, including drinking water, wastewater, stormwater, etc., to cover costs associated with adaptation

DPUC:

- a. The Division is typically in contact with NBC regarding NBC’s financial strategies for its management of wastewater systems. However, the Division has not specifically contacted NBC or the other OCRs (CommerceRI, Treasurer, DEM, DOH, OER, RIEMA, NBRWCT) regarding financial innovation for adaptation.
- b. Given the Division’s expertise with the financial and physical operations of Rhode Island utilities, but accounting for a lack of specific action on this issue, we consider the progress to be between zero and five percent.
- c. The Division only recently became aware of the Action Items and Division responsibility, which is now no longer an issue. It would also be helpful if the EC4 could distribute the list of agency contacts to all agencies, so staff could contact each other directly.
- d. No other partners and resources have been identified at this time.
- e. A collaborative group could be formed during November, but given the number and diversity of coordinating offices, we anticipate it will be hard to find availability to commence a meeting before early 2015.

Commerce RI: “does not have staff resources available to dedicate to this task at this time.”

GOAL 3 – PURSUE ECONOMIC OPPORTUNITIES

Action 3.1.1: Convene a Resilient Economy Collaborative to follow up on findings and key recommendations of Economic Intersections of Rhode Island (Feb. 2014) and Understanding the Opportunity and Impact of Climate Change (Draft April 2014)

CommerceRI: “is taking the lead on developing a clean-tech energy sector in Rhode Island.”

Action 3.1.2: Make test sites available to support piloting of resiliency-related innovation

Commerce RI: “does not control any real estate that can be used as test sites.”

Action 3.1.3: Develop a comprehensive workforce development strategy that maximizes the employment and training opportunities made available to diverse Rhode islanders in meeting the demands of the new economic opportunities resulting from the growing energy efficiency, renewable energy and resiliency industries.

DLT (OPR):

CommerceRI (OCR): “does not develop workforce development strategies. Governor’s Workforce Board is the more appropriate group to take this on.”

GOAL 4 – ACCELERATE VULNERABILITY ASSESSMENTS

Action 4.1.1 Establish one or more core, interdisciplinary, rapid assessment teams, preferably with private sector participation. Prioritize and conduct proactive assessments on regular schedule

EMA:

- a. Yes.
- b. **RIEMA has engaged all OCRs in numerous discussions regarding vulnerability assessments. A** vulnerability working group has also been identified to perform a number of tasks. The group is currently developing vulnerability assessment questions for incorporation into the CIKR Rapid Survey Tool, as well as begin thinking about ways to fund and perform a statewide vulnerability assessment, potentially utilizing CDBG-DR funds.
- c. .
- d. Yes, yet TBD.
- e. Unknown at this time.

CommerceRI: “does not have staff or resources to dedicate to this task.”

Action 4.1.2 Conduct risk assessment along state highway corridors for stormwater inundation, impacts of downed trees, utilities, etc.

DOT:

- a. RIDOT has not yet contacted the OCRs about this action item. As part of developing a Transportation Asset Management Plan (TAMP), RIDOT's consultant and internal staff are identifying risk locations. Once RIDOT identifies potential impact locations, RIDOT will work with OCRs to determine mitigation options and strategies.
- b. RIDOT's consultant is actively conducting a road inventory analysis which will consist of a geo-reference data information system. RIDOT will use this analysis/system to identify trees, utilities and other potential impacts.
- c. N/A
- d. Not at this time.
- e. Development of the TAMP (Action 6.2.3) is expected to take 13-19 months.

Action 4.1.3 Conduct assessment of known stormwater impacts between state highways and municipal drainage systems, options to eliminate or mitigate such impacts.

DOT:

- a. RIDOT has consulted with RIDEM and the Division of Planning. RIDOT has not yet consulted with RIEMA or CRMC.
- b. RIDOT has completed 10 percent of the assessment and mitigation work. The full assessment and majority of the mitigation construction work will be complete by 2021, pending available funding. RIDOT has mapped and inspected all of the approximately 4000 drainage outfalls known to be under State control. The next step is to locate and map all State-owned catch basins and manholes; data gathering is expected to be complete by the end of 2014, and the GIS mapping of catch basins and outfalls is expected to be complete by fall of 2015.

When State funds become available in 2017, RIDOT plans to embark on a comprehensive five-year catch basin cleaning, inspection and repair program statewide. During the course of this effort, RIDOT will map, inventory and repair the entire subsurface system, and thus mitigate flood hazards from currently constricted portions of the drainage system. Note that this program does not propose to make elevation or pipe sizing changes (i.e., system capacity will not be increased), but rather to leave the system in a state of good repair. Regular planned system cleaning after that time will help mitigate future flood hazards by keeping the system free of obstructions and blockages, and in a state of good repair.

- c. RIDOT is making progress, but funding remains uncertain.
- d. Completion of the program as planned will require an additional \$10 million per year for five years.
- e. Upon completion of the initial assessment and mitigation work in 2021, assessments will be ongoing in the future.

Action 4.1.4 Conduct statewide assessment of highway drainage system.

DOT:

- a. RIDOT has communicated with the Division of Planning.
- b. As part of developing a TAMP, RIDOT's consultant is conducting a road inventory analysis that will include a geo-reference data information system; by fall of 2015, the system will identify and map the visible drainage system. After identification of the visible drainage system, RIDOT must complete a detailed inspection of each structure to determine connectivity of systems. The timeframe for the detailed inspection will depend on resources, staffing and funding.
- c. N/A

- d. The timeframe for the detailed inspection will depend on available resources, staffing and funding.
- e. N/A

Action 4.1.5 Work with a science team to develop statewide heat island maps (coordinated with flood zones)

DOH:

This action has not been initiated. The help of a science team will be required. Once the science team is established, we can coordinate among the OCRs to accomplish this action item.

Action 4.1.6 Review and update Energy Assurance Plan or conduct new vulnerability assessment for energy infrastructure

OER:

- f. Yes.
- g. OER has coordinated with EMA. The working group will be convened by December 2014. The goal of the group is to develop a critical infrastructure protection plan for the energy sector in RI, building off of the work done to develop the 2012 Energy Assurance Plan.
- h. N/A
- i. N/A
- j. This project will likely be complete in late 2015.

Action 4.1.7: Complete RI Ports Assessment

Div. of Planning (OPR):

Commerce RI (OCR): “does not control ports in Rhode Island. Quonset Development Corporation and ProvPort should be the principal players in this effort.”

GOAL 5 – INCREASE RESILIENCE THROUGH MITIGATION

Action 5.1.2 Continue participation in the Regional Greenhouse Gas Initiative (RGGI), with the goal of reducing greenhouse gas emissions from the electric sector by 50% below 2005 levels by 2020

OER/DEM:

- a. Yes.
- b. RGGI Allocation Plans are developed annually by OER and OER consults with DEM before approving the plans. RGGI is on track to meet its 50% reduction goal (below 2005 levels) by 2020.
- c. N/A
- d. N/A
- e. This is ongoing.

Action 5.1.3 Measure, repair and prevent leaks in natural gas distribution system; evaluate and adjust repair and replacement options to serve both mitigation and adaptation objectives

DPUC:

- a. A formal meeting between parties to discuss the consideration of serving mitigation and adaptation objectives has not been scheduled. The EC4 should note, however, that the Division continually

reviews and maintains some oversight authority of National Grid's natural gas distribution system, particularly with regards to system integrity, reliability, and efficiency. The PUC dockets that address these issues are statutory annual Infrastructure, Safety, and Reliability (ISR) and Least Cost Procurement (LCP) filings by Grid. OER is typically a party to the LCP docket and is on the service list for the ISR dockets.

- a. *Note:* OER and DEM have met twice with National Grid to review and learn about National Grid's annual Natural Gas Infrastructure, Safety, and Reliability Plans and the investments that are currently being made to repair gas distribution leaks. (*Question: was DPUC invited?*)
- b. As no action specific to mitigation and adaptation has been taken, but given the Division's expertise on the natural gas repair and replacement programs, we consider the progress to be between zero and five percent.
- c. Please see item "c" in response to Action 2.5.2.
- d. No other partners and resources have been identified at this time.
- e. An evaluation and discussion about how to adjust various repair and replacement options to serve mitigation and adaptation could be completed in six to twelve months, optimistically. Implementation would possibly require an additional one to two years, again, optimistically.

Action 5.2.1 Finalize and adopt the update to the State Energy Plan

OER:

- a. Yes.
- b. The OER held a final meeting of the RISEP Advisory Council on 10/29/2014, where the Council approved the Plan to move onto the next stage of review through the State Planning Council Technical Committee and State Planning Council. The Plan will be added to their respective agendas on their meetings on December 5 and December 12.
- c. N/A
- d. N/A
- e. Division of Planning will have a better sense of how long the SPC review and adoption process takes.

Action 5.3.1 Establish building energy labeling program, disclosing energy performance data to occupants, prospective buyers and/or public; together with training program for building inspectors, including third-party inspectors.

OER:

- a. OER and National Grid had a conversation about this issue in the summer of 2014. National Grid included working on building energy labeling as part of its 3-year and 1-year plans, with the intent to follow up on details after the plans were filed. Representatives from OER, the Energy Efficiency & Resource Management Council, National Grid, Northeast Energy Efficiency Partnerships (NEEP), and others will be meeting to discuss next steps on this initiative on November 6, 2014.

The OER has also included this in our draft (confidential) legislative package for the 2015 session. Chris Kearns, the OER's legislative liaison, has been meeting with the RI Builders Association, NEEP, and the RI Realtors Association on possibly introducing legislation to require energy disclosures for all commercial and residential properties.

Action 5.3.2 Form Working Group to develop sustainable funding mechanism for energy efficiency programs for unregulated fuels

OER:

- a. Yes.
- b. OER convened the Thermal Working Group at the beginning of this year and has held approximately monthly meetings. A final report is expected during December 2014.
- c. N/A
- d. N/A
- e. A final report is expected December 2014.

Action 5.3.4 Develop RI implementation plan for 8-state ZEV policy and action plan.

OER:

- a. Yes.
- b. The Ocean State Clean Cities Coalition (OSCC) has been engaged to convene a RI ZEV working group and oversee development of the RI ZEV action plan. The OER has been working with OSCC, DEM, DOT and the Division of Planning to develop the work plan for the effort. The working group will convene its first meeting in late November/early December. The working group, aided by various subcommittees, will complete a RI ZEV Action Plan by April, 2015
- c. Progress initially hampered by lack of staff resources. This barrier has been resolved by hiring OSCC. Another barrier has been lack of a funding stream to provide buyer/vendor incentives.
- d. A stronger relationship with the RI Automobile Dealers Association will be needed.
- e. As noted above, the RI State ZEV Plan will be completed by April 2015.

Action 5.3.5 Prioritize congestion mitigation in project design and construction.

DOT:

- a. N/A
- b. Congestion management is a priority that RIDOT attempts to address as an aspect of all projects. Arterial Signal and Intersection Improvement projects are specifically targeted toward congestion management. Additionally, RIDOT partners with RIDOA in running the Congestion Management Task Force.
- c. N/A
- d. Not at this time.
- e. This is an on-going effort.

Action 5.4.1 Reduce GHG emissions, increase use of renewable energy and improve resilience by expanding the Distributed Generation program

OER:

- a. Yes
- b. Sustainable Energy Advantage (SEA) has been hired by the DG Board/OER to develop ceiling prices for the expanding distributed generation program, known as the Renewable Energy Growth (REG) Program. National Grid has developed a REG tariff and held several workshops for the DG Board and interested stakeholders in October. SEA released the first draft of proposed ceiling prices on October 20th at a public meeting. Public comments were solicited on the tariff and submitted to National Grid

on October 28. Public comment is also being solicited on the ceiling prices National Grid will submit the REG tariff documents to the PUC by November 14th. SEA will release the second draft of ceiling prices on November 17th.

- c. Work is on schedule and adequately funded.

Action 5.4.2 Increase renewable energy use while creating local jobs by updating licensing laws to remove barriers for renewable energy installations by local renewable energy businesses, electricians and general contractors

OER:

- a-b In June 2014, the General Assembly passed, and Governor Chafee signed, the renewable energy licensing bill, which clarified the roles of electricians and others professionals on a renewable energy job site. Licensing had been identified by the solar industry as the largest barrier to growth of the solar industry in Rhode Island. The law created a new license for Renewable Energy Professionals and tasked OER and the Department of Labor and Training with developing the criteria and application process. Staff from the Renewable Energy Fund at Commerce RI also assisted, and the application was available by September 10th. As of November 3, 2014, there are currently four licensed renewable energy professionals in the state of RI.

OER is partnering with Commerce RI (Renewable Energy Fund) and SmartPower to launch the Solarize Rhode Island program. Successfully implemented in more than 90 communities in CT and MA, Solarize aims to increase rooftop solar installations through reductions in solar soft costs one community at a time. Rhode Island has rolled out a three-town pilot in North Smithfield, Little Compton, and Tiverton. North Smithfield has already kicked off their program, with Little Compton and Tiverton to start toward the end of 2015. The project has four main components:

1. Partnership with individual towns and community-driven outreach. This helps drive down the cost by both reducing the marketing funds spent by the installer and by allowing for bulk purchasing.
2. Limited time period: Residents can only sign up for the program during a limited time period. This helps drive those interested to actually take action. For example, the sign up period for North Smithfield was September 10 – December 15th.
3. Tiered pricing structure: Installers bid a competitive tiered pricing structure. The more kW under contract, the lower the price falls for every participant. For example, in North Smithfield, there are three price tiers: 0-50kW, 51 – 150kW, and 151 and above.
4. Competitively selected installer: The towns work with a single installer for the program, which helps realize these reduced costs for marketing, bulk purchasing, etc.

Action 5.5.1 Develop comprehensive market development strategy for stimulating the adoption of renewable thermal fuels

OER:

- a. Yes.
- b. OER has allocated approximately half of the pilot funds committed through its RGGI Renewable Thermal Pilot initiative to explore the market potential of renewable thermal technologies in RI.
- c. N/A
- d. N/A

- e. OER expects to commit the rest of the funds during the first half of 2015. Based on the pilot, the OER will work with stakeholders to develop further recommendations for RI's renewable thermal market development strategy.

Action 5.6.1 Convene a working group to develop recommendations for electric grid, rate, and regulatory modernization

OER:

- a. Yes.
- b. OER and the EERMC have convened a "System Integration" subgroup, which is exploring issues of system reliability, utility planning and investment, and grid modernization.
- c. N/A
- d. N/A
- e. This effort is ongoing, and we expect a timeline and workplan with deliverables to be developed in early 2015.

GOAL 6 – INCREASE RESILIENCE THROUGH ADAPTATION

Action 6.1.2 Incorporate state-of-the-art GIS technologies into emergency response to improve rescue efforts and reduce loss of life and property

EMA:

- a. Yes.
- b. Coordination has occurred with multiple partners in regards to utilizing GIS for emergency response efforts, more specifically ensuring Emergency Support Functions have the understanding of what resources are currently available during an emergency. RIEMA facilitated an internal exercise to review all of the GIS layers that would potentially be needed during an emergency. The next step is to engage the ESFs to do the same.
- c. NA
- d. Emergency Support Function Leads
- e. If the action item is not complete, what is estimated date of completion (using realistic optimism)? Ongoing.

Action 6.1.3 Establish emergency permitting procedures to expedite issuance of state permits following severe storm events, and develop guidance (model procedures) for municipalities

EMA:

- a. Minimally.
- b. Some discussions have occurred on this topic, however, minimal progress has been made on this item.
- c. Additional discussions need to occur to include the State Building Commissioners Office as well as the other OCRs.
- d. State Building Commissioner's Office.
- e. Unknown at this time.

Action 6.1.5 When appropriate and consistent with federal regulations, incorporate the state's SLR and flood risk projections into evaluation criteria for public facilities and infrastructure projects funded through federal emergency and/or disaster allocations.

EMA:

- a. Yes.
- b. Several meetings have been held to discuss incorporating SLR and flood risk projections/data into planning efforts. Guidance has also been generated to augment the Natural Hazards component of the Comprehensive Planning Guidance from DOA.
- c. .
- d. ?
- e. Ongoing as new data becomes available.

Action 6.1.6 Conduct assessment of traffic light power needs for evacuation routes and implement upgrades as needed.

DOT:

- a. No.
- b. RIDOT has not begun working on this issue directly.
- c. RIDOT staff has been coordinating with the Office of Energy Resources to review existing power reduction alternatives for infrastructure, but not specific to evacuation routes. Existing staffing resources are limited.
- d. Additional staff could facilitate the research required; upon completion of the assessment, additional resources will be required to implement the upgrades.
- e. With existing resources, RIDOT anticipates completion of the assessment in 10-14 months. Implementation of upgrades would be prioritized bases upon corridor, Annual Average Daily Traffic, and severity/risk of traffic incidents. If upgrades are integrated into regular projects, full implementation of upgrades would likely take several years.

Action 6.2.3 Develop TAMP that includes adaptation strategies and measures to strengthen resilience of transportation system as identified through the study of impacts of sea-level rise on transportation assets and the highway corridor risk assessments.

DOT:

- a. RIDOT has communicated with the Division of Planning.
- b. RIDOT has completed preliminary internal interviews for the development of a risk-based TAMP. RIDOT is formulating preliminary adoption strategies and measures for resilience. Upon completion of the preliminary TAMP outline, RIDOT will meet, review and coordinate the preliminary with all OCRs. RIDOT has targeted this coordination meeting for December 2014.
- c. N/A
- d. N/A
- e. Development of the TAMP is expected to take 13-19 months.

Action 6.2.5: Conduct review of current natural gas infrastructure repair and replacement program from a GHG mitigation and adaptation perspective and develop recommendations.

DPUC:

- a-f Please see responses to Action 5.1.3.

Additional comments: The Division feels that Action 6.2.5 does not differ from Action 5.1.3 substantially enough to report on both actions. We recommend eliminating Action 6.2.5.

Action 6.2.6 Assess the opportunity, costs, and benefits of deploying resilient microgrids at critical infrastructure to maintain services during power outages or severe weather events

OER:

- a. No.
- b. OER has been awarded CDBG-DR funding, but no progress has been made yet to date.
- c. OER plans to coordinate this project with Action 4.1.6, and intends to kick it off during the next two months. Staff capacity constraints have been a key barrier to date.
- d. N/A
- e. Anticipated completion by end of 2015.

Action 6.3.1 Complete Climate and Health Profile, identifying priority health impacts from climate change and recommending adaptation strategies

DOH:

First draft of the report has been completed and distributed to the EC4. The final draft is expected to be complete and available in January 2015.

Action 6.4.2: Conduct public outreach and education, as part of larger resiliency education campaign at community level, about need to raise "freeboard" from 1' to 2' or 3'

EMA:

- a. Yes.
- b. Discussions have been held with both the State Building Commissioners Office as well as other stakeholders. This change will require a change to the State Building Code and many levels of partners need to be on board with this effort.
- c. N/A
- d. Association of Builders, Association of Realtors, Insurance Agencies, Municipalities/zoning boards
- e. Unknown at this time.

Action 6.4.3: Build capacity for waterfront business sectors, including marine trades, building and real estate sectors, to incorporate impacts of climate change in business strategies, and provide guidance for hazard mitigation and adaptation.

CRC:

- a. The URI/CRC/RISG team has coordinated on two projects, not a larger strategy.
- b. URI/CRC/RISG has implemented a Rapid Assessment of three maritime related businesses in Newport, and is using this as a foundation for outreach and development of resilience assessment checklist for this sector in Newport, and potentially statewide. This will link with URI/OCE activity related to resilience assessment with targeted marinas. 30% complete.
Staying Afloat: Adapting Waterfront Business to Rising Seas and Extreme Storms – 13th Annual Sea Grant Symposium will be held December 9-10 in Newport. Provides an opportunity for presentation and discussion among business, decision makers and other stakeholders. 75% complete
Partnerships are expanding throughout these projects to include: Newport Maritime Alliance, Rhode Island Marine Trades, Newport Chamber of Commerce, Commerce RI, Statewide Planning, DEM-NERR, among others.
- c. N/A

- d. For this limited activity, resources have been secured. To expand beyond these projects, or to go into an implementation phase of a resilience checklist, financial resources will be required and extended partnerships secured.
- e. December 2015.

Action 6.4.4 Develop public-private partnerships to create buy-out programs, targeting most vulnerable areas and leveraging funding from a variety of sources

EMA:

- a. Yes.
- b. RIEMA has had discussions with DOA/Statewide Planning regarding this issue. RIEMA has applied for funding under CDBG-DR to conduct a feasibility study which will investigate the legal and programmatic hurdles which will need to be identified in order to develop and implement a buy-out program in the State. The CDBG-DR funding is currently available and RIEMA will revisit this opportunity in early 2015 in coordination with DOA.
- c. NA
- d. ?
- e. Unknown at this time.

Action 6.5.2 Develop a statewide coastal wetland monitoring, protection and restoration strategy to help lower the rate at which habitat, ecosystem resilience and shoreline protection are being lost, and to develop effective mitigation and adaptation strategies

CRMC:

Status: CRMC is coordinating with DEM, NBNERR, NBEP, STB, USEPA, USFWS, USDA-NRCS and other partners to develop a coastal wetland restoration strategy. A draft document is currently in development that incorporates recent research and assessment data, predictive Sea Level Affecting Marshes Modeling and expert feedback from multiple workshops and working group meetings. The restoration strategy is tentatively scheduled for completion by July 2015. This action is about 50% completed. CRMC and partners are in the design and planning stages for two restoration projects, one at Narrow River and the other within the Salt Ponds Region that will pilot the method of beneficial reuse of dredged material for marsh restoration and elevation enhancement.

The Narragansett Bay National Estuarine Research Reserve and Save The Bay with funding from the RIBRWCT Environmental Monitoring Collaborative are currently developing a coastal wetland monitoring strategy for the state based on a vetted set of regional indicators. The monitoring strategy is expected to be completed in 2015 and is less than 50% completed.

Action 6.5.3 Adopt Sea Level Affecting Marshes Model (SLAMM) data and projections as planning and decision-making support tool in statewide coastal wetland monitoring, protection and restoration strategy

CRMC:

Status: CRMC has coordinated with the OCRs (Div. of Planning, DEM and NBERR) and other stakeholders (TNC, URI CRC, RISG, STB) .SLAMM maps have been completed for all 21 RI coastal communities. CRMC has issued public notice to adopt SLAMM maps within Section 210.3 (Coastal Wetlands) of the Coastal Resources Management Program. The maps are available online as PDF files by municipality here:

http://www.crmc.ri.gov/maps/maps_slamm.html. The CRMC public notice is online here:

http://www.crmc.ri.gov/regulations_proposed/2014_1125_CRMP_110and210.pdf). The CRMC public hearing

for the program amendment is scheduled for November 25 and adoption expected in December 2014. GIS shape files of SLAMM data will be uploaded to RIGIS website for public use by the end of 2014 and a final summary report will be completed in early 2015. This action is more than 90% completed with final maps, a public meeting and two municipal training workshops completed (as of October 30). The remaining tasks are adoption by the CRMC (scheduled for Nov 25) and the summary report.

**Note:* Div. of Planning was listed with (?) as OPR, but this task should be lead by CRMC since it has statutory authority for protection of coastal wetlands with Planning as a support agency with DEM and NBNERR.

Action 6.5.4 Convene short term working group to develop options for long term, sustainable funding of coastal wetlands protection and restoration, including, but not limited to legislation

CRMC:

Status: A working group convened by CRMC and DEM has met with other stakeholders to develop a statewide habitat restoration strategy with long-term sustainable funding options part of the discussion. The restoration strategy is expected to be completed during 2015 and the task is less than 50% completed at this time.

For the past 11 years coastal wetland protection projects have been funded through the RI Coastal and Estuarine Habitat Restoration Trust Fund that is managed by the CRMC. The trust fund has provided over \$2.5 million for close to 100 projects and has leveraged more than \$23 million in matching funds for these projects over the years. The Trust Fund is established in R.I.G.L. § 46-23.1-1.

**Note:* Div. of Planning was listed with (?) as OPR, however, this task should be lead by CRMC since it has statutory authority for protection of coastal wetlands under R.I.G.L. § 46-23 with Planning as a support agency with DEM, NBEP and others.

Objective 6.6 Develop and implement adaptation strategies to reduce impacts to natural resources, protect and where possible improve ecosystem resilience, and adapt resource management policies and programs to changing trends and conditions

Action: to be developed with CRMC, DEM, DOH, URI, et al.

CRMC:

Status: Other than the specific CRMC actions noted above for coastal ecosystems, the action necessary to address this objective needs to be comprehensively developed with other agencies to include DEM. This is a broad-based goal, one that may be addressed through the combination of other agency actions.

Action 8.3.1 Develop program that can be delivered in modules, and tailored to different audiences, as part of state outreach initiative or in response to requests from communities, businesses, organizations

EMA:

- a. Yes.
- b. RIEMA has coordinated with the Communications working group as well as Brown University to discuss how best to develop and communicate a statewide outreach initiative.
- c. .
- d. Other partners/stakeholders will likely be identified as the outreach workplan is developed.
- e. Ongoing.